

Container trade

When trade and security clash

Apr 4th 2002

From The Economist print edition

**The shipping container has revolutionised world trade. Now it is a potential carrier of terrorists and their weapons**

LAST October, a discovery at the southern Italian port of Gioia Tauro shook the foundations on which world trade has grown so rapidly in the past half century. A suspected al-Qaeda terrorist was found inside a container. The Egyptian suspect, who later disappeared while on bail, was equipped in comfort for the duration of the container's intended sea voyage from Italy to Halifax in Canada. He carried plans of airports, an aviation mechanic's certificate and security passes. Intelligence sources say other containers similarly fitted out were found at the Italian port.

This alarming discovery underlined the tension between the needs of international security and those of global trade. The Egyptian stowaway horrified America's security establishment. When officials looked at studies carried out before September 11th on the possibilities of using a container to smuggle nuclear-bomb components into the United States, their fears only grew. For the technology that has transformed trade in legitimate goods can also easily be used for illicit transport of people and materials.

Terrorists, American officials have come to believe, are aiming not just to cause death and destruction within the United States, but also to cripple the country economically by targeting or seeming to target its trade. If the al-Qaeda network is as sophisticated as some people argue, it may have noticed the vulnerability of the American economy to disruption of its industries' supply chains.

Most industries—whether Ford and General Motors, with their just-in-time manufacturing, or computer companies such as Cisco and Compaq, which ship parts in from Asia—have come to depend on global supply chains in which the humble container box is an important link. Every day, over 15m containers are moving around at sea or on land, or standing in yards waiting to be delivered. They account for about 90% of the world's traded cargo by value.

Invented during the second world war as an efficient way of moving military equipment up to the front line without tying down too many soldiers for loading and unloading ships, the container has become indispensable to world commerce. Today, containers have helped to make the distribution

of goods so efficient that manufacturers have been able to reduce inventories to a bare minimum. Since 1980, according to Bob Delaney of Cass Information, a logistics company based in Bridgeton, Missouri, the ratio of inventory to GDP in the United States has declined from 25% to 15%. The total value of America's business inventory in 2000 was \$1.5 trillion; without the logistics policies and programmes implemented in the past 20 years, it would have been \$2.5 trillion.

All that would change if containers were screened, as airline passengers are. At the moment, inspectors examine only 2% of containers, and often only after the containers have already travelled hundreds of miles from a port to a big city like Chicago or Detroit. The potential damage that routine screening might cause was clear from the two-day wait at the American-Canadian border after September 11th: it nearly caused chaos at Detroit's car factories, which rely on flows of parts from Canada. The burden and disruption of extra security would weigh heavily on a shipping industry that is already suffering from the economic slowdown.

High crime wave

The standardised container initially cut small-time cargo pilfering, long a plague in ports. But that proved short-lived. Thieves soon learned that, by stealing a full container (usually in transit), they could increase their own productivity, especially if they knew in advance what the contents were. The average value of cargo theft increased fivefold (to \$500,000) between the 1970s and 1990s. Containers also turned out to be handy ways to smuggle drugs, contraband and illegal immigrants. A victim of its own success, the container offered criminals the same benefits as those enjoyed by ocean carriers and shippers: efficiency and security.

Government and industry have come up with some ways to combat this crime. Container seals have been made tougher. (Thieves have been known to empty an in-transit container with no outward sign of entry.) Shipping lines that take part in anti-smuggling programmes get faster clearance for their boxes. But more needs to be done.

So far, federal agencies and the container-transport industry have recognised the threat but done little of substance. Stephen Flynn, an influential security adviser at the Council on Foreign Relations, a think-tank based in New York, has been sharply critical of the government's approach to security. The two front-line services, the US Customs and the US Coast Guard, were seriously under-funded, argues Mr Flynn (himself a former Coast Guard commander), while the overall federal effort was undermined by feuding among agencies. Mr Flynn believes things may have improved since September 11th, but not enough to inspire confidence.

The experience of the carriers suggests that he is right. Despite a big security presence around ports immediately after September 11th, carriers say they have not yet suffered any serious disruption to containers entering or leaving the United States. The US Customs Service has increased border inspectors and equipped them with mobile radiation detectors; the US Coast Guard has boarded ships with armed sea marshalls; they have also demanded earlier notice of ship arrivals; and the government has provided some emergency funding to improve port security.

But containers are still rolling along much as before. This worries the industry's representatives. Chris Koch, chief executive of the World Shipping Council, a trade body based in Washington, DC, believes a further terrorist incident could lead to a bungled government response, jamming up the system. Even worse, he thinks, could be a failure to do anything coherent, followed by a complete shutdown of ports after an attack.

Trojan box

The American government is only just beginning to realise how vast and complex the container-transport industry is. Last year, the world's total movement in containers amounted to 72m TEU ("20-foot equivalent units", the industry standard, even though containers are increasingly 40 feet, or 13 metres, long). H.P. Drewry, a shipping consultancy, uses a much larger figure, of 244m TEU, to express the number of containers handled in 2001 by all ports; this includes empty containers being repositioned and trans-shipped containers (usually dropped off by large container ships at large hubs for onward shipment by smaller feeder ships). Such numbers give some idea of the scale of the problem: how can 72m containers be monitored, let alone 244m?

In addition, the movement of each container is part of a transaction that can involve up to 25 different parties: buyers, sellers, inland freighters and shipping lines, middlemen (customs and cargo brokers, for example), financiers and governments. A single trade can generate 30-40 documents, and each container can carry cargo for several customers, thus multiplying the number of documents still further.

A typical large container ship can carry up to 6,000 TEU and generate 40,000 documents. In 2001, around 9m TEU arrived in America's container ports by sea, which translates into around 17,000 actual boxes a day. Many more arrive in America from Canada, mainly by train or truck.

The fact that containers are "intermodal"—ie, they can travel by sea and on land, by road or rail—means the system is difficult to regulate as it crosses jurisdictional boundaries. On a ship at sea, the container comes under the aegis of the International Maritime Organisation (IMO), a United Nations body based in London. On land—in a port, or on road or rail—it passes into the hands of national governments, which may have separate legislation for the different transport modes.

This creates a problem for the United States when it seeks to enact container security regulations internationally through the IMO. The IMO's writ ends at the shoreline. Whereas it can establish international rules for the identification of ships and their crews, it cannot force ports to adopt new security rules. In olden times, colonial powers solved that problem by seizing ports (such as Gibraltar or Singapore) over which they wished to exercise control. That is hardly a possible solution today. The need now is for international co-operation on port security.

The problem is exacerbated because governments have tended to see port security as a poor relation of airport security. In Britain, for example, the Aviation and Maritime Security Act was passed in 1990 after a bomb exploded in a Pan Am plane over Lockerbie, but the "maritime" bit was an afterthought. It was added only to reflect concerns over two terrorist attacks on cruise ships in the Mediterranean (on *Achille Lauro* in 1985 and *City of Poros* in 1988).

To overcome this jurisdictional divide between land and sea, America may seek bilateral agreements with those countries from whose ports most of its containers arrive. The main thrust of thinking is that America should push its borders out and pre-screen containers in specially created security zones before they are loaded on to ships in foreign ports. This would be done with the co-operation of the foreign authorities, and with American inspectors present to help local officials. An arsenal of security measures would be deployed—from x-ray machines in container terminals to transponders inside containers that would detect whether they had been opened in transit. These devices would broadcast a signal via satellite.

Robert Bonner, the head of the US Customs Service, has proposed that, to begin with, America should focus on the top ten container ports that trade with it, and should seek to funnel as many containers as possible through approved gateways. The top ten—which include Hong Kong, Rotterdam and Shanghai—handle around

half of all America-bound containers; Hong Kong alone accounts for 10%. Under Mr Bonner's plan, they might increase that share markedly at the expense of smaller and higher-risk ports. But the United States is also considering proposals to help finance the extra security that would allow smaller ports to attain the necessary standards. This would help avoid any distortion of trade patterns that could add to the cost of running global supply chains.

Others, however, think that America should go further and extend its border controls to the point of origin: the factory or warehouse where the container is first filled and sealed. Containers arriving at a port for loading on to an America-bound ship would not be accepted unless they met strict security criteria.

Rob Quartel, a former federal maritime commissioner, is among those who are in favour of such point-of-origin controls. He also wants the new border to be "electronic" rather than physical, creating a profile of the container's contents by sophisticated use of databanks, which capture and combine existing electronic documents from both government and commercial sources. To this could be added data from financial sources (for example, letters of credit held by banks) and documentation covering the inland leg of the container's journey.



America inspecting

Mr Quartel, now the chairman of Freightdesk Technologies, a freight-management technology specialist based in Vienna, Virginia, believes that America will be unable to impose security requirements on foreign shippers. But he thinks it could ensure that the receivers of containers in America realise they will face delays unless they know their customers and can validate cargo security. The idea fits into the generally accepted concept of fast and slow lanes, graded by security rating.

Not surprisingly, the private-security industry is eyeing such ideas with relish. Charles Upchurch, president of SGS Global Trade Solutions of New York, an inspection company, argues that government should use only accredited private firms for security audits and container inspections. Shipping-industry representatives have been advancing their ideas in a seemingly endless round of hearings at the Senate and House of Representatives in Washington, DC, accompanying them with what must be a veritable container-load of papers.

Whatever scheme the United States finally adopts, government and industry agree that the aim should be to achieve the maximum security with the minimum disruption to trade. Security barriers can easily become trade barriers. The head of the Coast Guard, Admiral James Loy, explains: "To sustain prosperity, we open the gates. To ensure security, we close the gates. We clearly need to get beyond the metaphor of an opened or closed gate."

Some logistics experts, such as Mr Delaney, argue that American industry could absorb the inevitable increase in inventory and logistics costs. A 5% increase in inventory would cost American companies an extra \$20 billion, but that must be set in the context of the \$1 trillion spent annually by American business on logistics. "Just-in-time will bend, but it will not break," Mr Delaney confidently predicts.

He is, however, talking only about inland transport. Mr Koch of the World Shipping Council says that America cannot solve the container problem alone; it needs more help from the rest of the world than it cares to admit. The issue is not merely about boxes on ships, he argues, but about how the basic mechanisms of world trade can operate so that they maintain efficiency while at the

same time enhancing security.

Trade flows depend on trust to flourish. But total trust is clearly impossible in a world where death can arrive hidden in a metal box. Only with clever use of technology and international co-operation are the world's big trading countries likely to avoid disruption and expense. Even then, it will be a question of minimising the threat rather than eliminating it.

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